

## WHAT IS CLAIMED IS:

1. A display device being a hold type display device which holds a brightness of the antecedent picture until the subsequent signal is inputted to a pixel, wherein:

a frame displaying one picture is time-divided into multiple

5 sub-frames; and

a brightness of the subsequent sub-frame is attenuated at a designated ratio according to the brightness of inputted picture.

**2. A display device comprising:**

a sub-frame generating means which time-divides a frame displaying one picture into multiple sub-frames;

an attenuation signal generating means for generating an

5 attenuation signal by dividing an inputted luminosity signal by a designated attenuation coefficient; and

a signal switching means for inputting the luminosity signal before division to the antecedent sub-frame in the relevant frame, and inputting the attenuation signal after division to the subsequent sub-frame in the relevant frame.

3. A display device being a hold type display device which holds a brightness of the antecedent picture until the subsequent signal is inputted to a pixel, wherein:

a frame displaying one picture is time-divided into multiple

5 sub-frames; and

the brightness of the subsequent sub-frame is attenuated at a designated ratio according to the brightness of inputted picture, comprising:

a sub-frame generating means which time-divides a frame

10 displaying one picture into multiple sub-frames;

an attenuation signal generating means for generating an attenuation signal by dividing an inputted luminosity signal by a designated attenuation coefficient; and

15 a signal switching means for inputting the luminosity signal before division to the antecedent sub-frame in the relevant frame, and inputting the attenuation signal after division to the subsequent sub-frame in the relevant frame.

4. A display device comprising:

a sub-frame generating means which time-divides a frame displaying one picture into multiple sub-frames;

5 an attenuation signal generating means for generating an attenuation signal by dividing an inputted luminosity signal by a designated attenuation coefficient; and

10 a signal switching means for inputting the luminosity signal before division to the antecedent sub-frame in the relevant frame, and inputting the attenuation signal after division to the subsequent sub-frame in the relevant frame, wherein:

the attenuation signal generating means generates a signal by shifting the series of a digitalized luminosity signal in the direction of the low order digit and eliminating the digits which are underflowed due to the shift, and outputs the generated signal as the attenuation signal.

5. A display device being a hold type display device which holds the brightness of the antecedent picture until the subsequent signal is inputted to a pixel, comprising:

a sub-frame generating means which time-divides a frame displaying one picture into multiple sub-frames;

an attenuation signal generating means for generating an attenuation signal by dividing an inputted luminosity signal by a

designated attenuation coefficient; and

a signal switching means for inputting the luminosity signal

- 10 before division to the antecedent sub-frame in the relevant frame, and  
inputting the attenuation signal after division to the subsequent  
sub-frame in the relevant frame, wherein:

a frame displaying one picture is time-divided into multiple  
sub-frames;

- 15 the brightness of the subsequent sub-frame is attenuated at a  
designated ratio according to the brightness of inputted picture; and

the attenuation signal generating means generates a signal by  
shifting the series of a digitalized luminosity signal in the direction of the  
low order digit and eliminating the digits which are underflowed due to  
the shift, and outputs the generated signal as the attenuation signal.

6. A display device comprising:

a sub-frame generating means which time-divides a frame  
displaying one picture into multiple sub-frames;

- 5 an attenuation signal generating means for generating an  
attenuation signal by dividing an inputted luminosity signal by a  
designated attenuation coefficient;

10 a signal switching means for inputting the luminosity signal  
before division to the antecedent sub-frame in the relevant frame, and  
inputting the attenuation signal after division to the subsequent  
sub-frame in the relevant frame;

an integration means for integrating the luminosity signals of  
entire pixels which form a picture in the relevant frame; and

- 15 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the obtained  
integrated value.

7. A display device being a hold type display device which holds the brightness of the antecedent picture until the subsequent signal is inputted to a pixel, wherein:

a frame displaying one picture is time-divided into multiple

5 sub-frames, and

the brightness of the subsequent sub-frame is attenuated at a designated ratio according to the brightness of inputted picture, comprising:

10 a sub-frame generating means which time-divides a frame displaying one picture into multiple sub-frames;

an attenuation signal generating means for generating an attenuation signal by dividing an inputted luminosity signal by a designated attenuation coefficient;

15 a signal switching means for inputting the luminosity signal before division to the antecedent sub-frame in the relevant frame, and inputting the attenuation signal after division to the subsequent sub-frame in the relevant frame;

an integration means for integrating the luminosity signals of entire pixels which form a picture in the relevant frame; and

20 an attenuation coefficient generating means for generating an attenuation coefficient which is varied according to the obtained integrated value.

8. A display device comprising:

a sub-frame generating means which time-divides a frame displaying one picture into multiple sub-frames;

5 an attenuation signal generating means for generating an attenuation signal by dividing an inputted luminosity signal by a designated attenuation coefficient;

a signal switching means for inputting the luminosity signal

2007ZD-82600660

before division to the antecedent sub-frame in the relevant frame, and  
10 inputting the attenuation signal after division to the subsequent  
sub-frame in the relevant frame;

an integration means for integrating the luminosity signals of  
entire pixels which form a picture in the relevant frame; and

15 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the obtained  
integrated value, wherein:

the attenuation signal generating means generates a signal by  
shifting the series of a digitalized luminosity signal in the direction of the  
low order digit and eliminating the digits which are underflowed due to  
the shift, and outputs the generated signal as the attenuation signal.

9. A display device being a hold type display device which  
holds the brightness of the antecedent picture until the subsequent  
signal is inputted to a pixel, comprising:

5 a sub-frame generating means which time-divides a frame  
displaying one picture into multiple sub-frames;

an attenuation signal generating means for generating an  
attenuation signal by dividing an inputted luminosity signal by a  
designated attenuation coefficient;

10 a signal switching means for inputting the luminosity signal  
before division to the antecedent sub-frame in the relevant frame, and  
inputting the attenuation signal after division to the subsequent  
sub-frame in the relevant frame;

an integration means for integrating the luminosity signals of  
entire pixels which form a picture in the relevant frame; and

15 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the obtained  
integrated value, wherein:

a frame displaying one picture is time-divided into multiple sub-frames;

20 the brightness of the subsequent sub-frame is attenuated at a designated ratio according to the brightness of inputted picture; and

the attenuation signal generating means generates a signal by shifting the series of a digitalized luminosity signal in the direction of the low order digit and eliminating the digits which are underflowed due to  
25 the shift, and outputs the generated signal as the attenuation signal.

10. A display device as claimed in claim 2 comprising:

a luminosity classifying means for segmenting the inputted luminosity signals according to the luminosity level; and

an attenuation coefficient generating means for generating an attenuation coefficient which is varied according to the segmented brightness range.  
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11. A display device as claimed in claim 3 comprising:

a luminosity classifying means for segmenting the inputted luminosity signals according to the luminosity level; and

an attenuation coefficient generating means for generating an attenuation coefficient which is varied according to the segmented brightness range.  
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12. A display device as claimed in claim 4 comprising:

a luminosity classifying means for segmenting the inputted luminosity signals according to the luminosity level; and

an attenuation coefficient generating means for generating an attenuation coefficient which is varied according to the segmented brightness range.  
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13. A display device as claimed in claim 5 comprising:  
a luminosity classifying means for segmenting the inputted  
luminosity signals according to the luminosity level; and

5 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the segmented  
brightness range.

14. A display device as claimed in claim 6 comprising:  
a luminosity classifying means for segmenting the inputted  
luminosity signals according to the luminosity level; and

5 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the segmented  
brightness range.

15. A display device as claimed in claim 7 comprising:  
a luminosity classifying means for segmenting the inputted  
luminosity signals according to the luminosity level; and

5 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the segmented  
brightness range.

16. A display device as claimed in claim 8 comprising:  
a luminosity classifying means for segmenting the inputted  
luminosity signals according to the luminosity level; and

5 an attenuation coefficient generating means for generating an  
attenuation coefficient which is varied according to the segmented  
brightness range.

17. A display device as claimed in claim 9 comprising:  
a luminosity classifying means for segmenting the inputted

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luminosity signals according to the luminosity level; and

an attenuation coefficient generating means for generating an

- 5 attenuation coefficient which is varied according to the segmented  
brightness range.